



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,078	02/08/2006	Gunter Jakel	JAKEL -1 PCT	5297
25889 7590 09/04/2007 WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER LEUNG, WAI LUN	
			ART UNIT 2613	PAPER NUMBER
			MAIL DATE 09/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/534,078

Applicant(s)

JAKEL, GUNTER

Examiner

Wai Lun Leung

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on 6/25/2007. These drawings are not acceptable.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the infrared data transmission from **several transmitter units** to a common receiver station" must be shown or the feature(s) canceled from the claim(s). Replacement sheet for figure 1 only show ONE transmitter unit (1). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Lines 2-6 of claim 3 requires “the transmitter units transmitting the data in blocks with a common carrier frequency and in time intervals of the same length for all transmitter units according to the maximum number of transmitter units..” while lines 7-9 of claim 3 requires “the length of the time intervals for all transmitter units differing at least by twice the transmission time for a maximum data block size”. It is unclear as to whether the time intervals being claimed are the same or are they different. The claimed element appears to be contradictory to itself. Similar limitations also appears in claims 4 and 5, which claims the transmission times being equal, yet somehow having “the shortest time interval” and “the longest time interval”.

As to claim 4, it is unclear as to what is meant by “wherein the transmission times of the data blocks transmitted by the transmitter units are equal, and the length of the time intervals of the same length of the maximum number of the transmitter units less a multiple of the longest time interval corresponding to one transmitter unit plus the length of the shortest time interval and the transmission time correspond to data black size.” The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Art Unit: 2613

As to claim 5, in addition to the conflicting terms “time intervals of the same length for all transmitter units” and “length of the time intervals for all transmitter units differing at least by twice the transmission time” and having “the shortest interval” as discussed above; the claim also requires “the memory being capable of being read out in repeated time intervals predetermined with respect to the duration thereof in dependence transmission unit, the time intervals extending step by step by at least double the transmission time for a data block from a minimum length of a time interval **depending on the number of transmitter units** and double the transmission time for a data block.” It is unclear as how such dependency is being made. It is unclear and contradictory as to how a “predetermined time intervals” can also be “depending on the number of transmitter units and double the transmission time for a data block”, the claim also fails to specify how such dependency is being claimed.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As discussed above, claim 5 requires “the memory being capable of being read out in repeated time intervals predetermined with respect to the duration thereof in dependence transmission unit, the time intervals extending step by step by at least double the transmission time for a data block from a minimum length of a time interval **depending on the number of**

Art Unit: 2613

transmitter units and double the transmission time for a data block.” *The specification fails to clearly describe how such dependency is being made.* It is unclear and contradictory as to how a “predetermined time intervals” can also be “depending on the number of transmitter units and double the transmission time for a data block”.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Furthermore, the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.* note that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn* 441 F.3d977,988,78 USPQ2d1329,1336(Fed.Cir.2006) stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

8. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Heep et al.** (US005331450A), in view of **Beggs et al.** (US005122796A).

Art Unit: 2613

Regarding claim 3, as it is best understood in view of the above 112 problems, **Heep** discloses a method for infrared data transmission from several transmitter units to a common receiver station (*fig 1*), the transmitter units transmitting the data in blocks with a common carrier frequency (*col 3, ln 64-col 4, ln 18*) and in time intervals of the same length for all transmitter units according to the maximum number of transmitter units (*fig 4*), the data blocks being transmitted with a modulation of a carrier frequency (*col 4, ln 11-14*), the length of the time intervals for all transmitter units differing at least by twice the transmission time for a maximum data block size (*fig 4*), and the shortest interval corresponding at least to a multiple of double the transmission time for the maximum data block size, the multiple corresponding to the maximum number of transmitter units (*fig 4*). **Heep** does not disclose expressly wherein the carrier frequency is at 56kHz. **Beggs**, from the same field of endeavor, teaches a method for infrared data transmission from several transmitter units to a common receiver station (*fig 2*), signals being transmitted with a modulation of the carrier frequency of 56kHz (*col 6, ln 38-68*). Therefore, it would have been obvious for a person of ordinary skill in the art at the time of invention to transmit **Heep's** optical signal at the carrier frequency of 56kHz as suggested by **Beggs**. The motivation for doing so would have been to use a sufficiently high frequency optical signal to provide optimum discrimination against background sunlight and light from other sources (*Beggs, col 6, ln 42-46*).

Furthermore, it would have been obvious for a person of ordinary skill in the art at the time when the invention was made to recognize the known improvement technique such as that of **Beggs's** could have applied in the same way to **Heep's** base device and the results of transmitting optical signal having sufficiently high frequency to provide optimum discrimination

Art Unit: 2613

against background sunlight and light from other sources would have been predictable to one of ordinary skill in the art. Therefore, the rationale of use of known technique (**Begg's**) to improve similar methods (**Heep's**) in the same way has been clearly articulated herein with the *Graham* inquiries and findings as presented above.

As to claim 4, as it is best understood in view of the above 112 problems, **Heep** further teaches wherein the transmission times of the data blocks transmitted by the transmitter units are equal, and the length of the time intervals of the same length of the maximum number of the transmitter units less a multiple of the longest time interval corresponding to one transmitter unit plus the length of the shortest time interval and the transmission time correspond to data block size (*fig 4*).

Regarding claim 5, as it is best understood in view of the above 112 problems, **Heep** further teaches an apparatus (*fig 1 & 2*) for performing the function as discussed above in claim 3. **Heep** further teaches wherein each transmitter unit comprises a memory for combining the data into a respective one of the data blocks (*col 7, ln 50-55*), a control unit connected to a timing element for reading the data blocks out of the memory (*col 7, ln 56-62*), and a transmitter module for modulating the common carrier frequency (*col 6, ln 8-35*), the memory being capable of being read out in repeated time intervals predetermined with respect to the duration thereof in dependence on the number of transmission units and differing for each transmission unit, the time intervals extending step by step by at least double the transmission time for a data block from a minimum length of a time interval depending on the number of transmitter units and double the transmission time for a data block (*fig 6*). Therefore, it would have been obvious

Art Unit: 2613

for a person of ordinary skill in the art at the time of the invention was made to combine **Heep and Beggs** for the same reason as stated above regarding claim 3.

Response to Arguments

9. Applicant's arguments with respect to claims 3-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record in pervious action(s) and not relied upon is considered pertinent to applicant's disclosure.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wai Lun Leung whose telephone number is (571) 272-5504. The examiner can normally be reached on 11:30am-9:00pm Mon-Thur.

Art Unit: 2613

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DWL
8/28/2007


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800